

## University of Pretoria Yearbook 2016

## Linear algebra 261 (MAT 261)

**Qualification** Undergraduate

Faculty of Natural and Agricultural Sciences

Module credits 11.00

**Prerequisites** MAT 152

**Contact time** 2 tutorials per week, 2 lectures per week

Language of tuition English

**Academic organisation** Mathematics and Applied Maths

**Period of presentation** Semester 2

## Module content

Vector spaces: Vector spaces and subspaces, linear independence, basis and dimension, coordinate vectors, inner product spaces. Linear transformations: Algebra of linear transformations, kernel and image, matrix of a general linear transformation, change of basis.

Eigenvalues and eigenvectors, diagonalization.

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